

PATENT COOPERATION TREATY

PCT


INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 01 JUL 2005

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Applicant's or agent's file reference 45559pct1		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/GB2004/001388		International filing date (day/month/year) 25.03.2004	Priority date (day/month/year) 25.03.2003	
International Patent Classification (IPC) or national classification and IPC A47G23/08				
Applicant DICKENS, Anthony				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 5 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in Item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 22.10.2004		Date of completion of this report 04.07.2005		
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Vistisen, L Telephone No. +31 70 340-2943		



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. 1 Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

3-6
1, 2

as originally filed
received on 22.10.2004 with letter of 22.10.2004

Claims, Numbers

24, 25
1-23

as originally filed
received on 22.10.2004 with letter of 22.10.2004

Drawings, Sheets

1/6-6/6

as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
- * If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application,
 - ☒ claims Nos. 23
- because:
- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
 - ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
 - ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 - ☒ no international search report has been established for the said claims Nos. 23
 - ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
 - the written form ☐ has not been furnished
 - ☐ does not comply with the standard
 - the computer readable form ☐ has not been furnished
 - ☐ does not comply with the standard
 - ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.
 - ☐ See separate sheet for further details

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-22
	No: Claims	
Inventive step (IS)	Yes: Claims	1-22
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-22
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

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Re Item III.

Rule 6.2(a) PCT: Claim 23

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following document:

D1: GB-A-1 329 218 (EMSAWERK WULF CO) 5 September 1973 (1973-09-05)

1. The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and shows (the references in parentheses applying to this document):
A tray (16) having a handle portion and a peripheral base surrounding the handle portion to support items placed on the tray, the handle portion protruding upwardly from the peripheral base and comprising a hollow post, the base portion having an aperture in the centre thereof such that the hollow interior of the post is accessible from the underside of the base through said aperture.
 - 1.1 The subject-matter of claim 1 differs from this known tray in that:
the post being dimensioned to receive the post of the handle of another corresponding device to enable a plurality of such devices to be stacked together.
 - 1.2 The subject-matter of claim 1 is therefore new (Article 33(2) PCT).
2. The problem to be solved by the present invention may be regarded as providing a tray as that known from the prior art which can be stored with more efficient use of space.
 - 2.1 The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:
 - 2.2 The distinguishing feature is not present in other of the available prior art documents and there are no hint available for the skilled person that would make it obvious for him to arrive at the proposed solution.

**INTERNATIONAL PRELIMINARY
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3. Claims 2-22 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Tray

Description

5 The present invention relates to a tray that can be held with one hand, which can securely retain items placed thereon and which can be stacked with other such trays.

10 Many different types of trays are known that are used to transport a plurality of items, for example drinks to and from tables in bars or restaurants. However, all such known trays suffer a number of disadvantages. One is that they are flat and must be held either by their edges or underneath, which means that carrying drinks can be precarious and require delicate balance, especially in crowded environments, such as the bars and restaurants that they are most commonly used. Also, holding the tray by the edges requires both hands to keep it as steady as possible, so does not leave the user with a free hand for any other purposes. Another disadvantage is the lateral dimensions of such trays. Usually they are wide, which means that they are vulnerable to knocks when being carried through crowds, and because they are flat, the drinks supported thereon have no means of lateral stabilisation to prevent them falling over if they are subjected to a knock.

20 Therefore, there exists a need to provide a tray to carry a plurality of drinks easily, with one hand, and with which the drinks being transported are less vulnerable to spillage or falling over, to substantially alleviate or overcome the problems mentioned above.

25 According to the present invention therefore, there is provided a tray having a handle portion and a peripheral base surrounding the handle portion to support items placed on the tray, the handle portion protruding upwardly from the peripheral base and comprising a hollow post, the base portion having an aperture in the centre thereof such that the hollow interior of the post is accessible from the underside of the base through said aperture, the post being dimensioned to receive the post of the handle of another corresponding device to enable a plurality of such devices to be stacked together

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In a preferred embodiment, the base has a wall extending substantially vertically upwards from the perimeter of the base to prevent items from falling off the base.

- 5 Preferably, the handle portion further comprises a post extending vertically upwards from the centre of the base and a lifting handle located at the top of said post. Advantageously, the top of the post is vertically higher than the top of the wall, and the post preferably tapers inwardly towards its top.

- 10 Preferably, the top of the post has an aperture therein. In a preferred embodiment, the lifting handle comprises a circular hoop portion, a shaft portion connected to the hoop portion, and a snap-fit connection on the other end of the shaft distal from the hoop, the snap-fit connection conveniently comprising a plurality of resiliently deformable arms extending parallel to each other in the axial direction of
- 15 the shaft, an end of each arm distal from the shaft having a projection extending laterally outwards from the arm.

- The hoop portion, the shaft and the snap-fit connection means are preferably all integrally formed. Conveniently, the base portion is circular, and the post is
- 20 preferably also circular in cross-section.

- A preferred embodiment includes a rotatable collar between the post and the lifting handle. Conveniently, the collar has a central aperture therethrough to receive the shaft of the lifting handle to retain the collar in position between the post and the
- 25 lifting handle. Preferably, the collar has markings on the outer surface thereof and is preferably circular.

In a preferred embodiment, the base portion has a plurality of feet on the underside thereof, which are conveniently formed integrally with the base.

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Claims

1. A tray having a handle portion and a peripheral base surrounding the handle portion to support items placed on the tray, the handle portion protruding upwardly from the peripheral base and comprising a hollow post, the base portion having an aperture in the centre thereof such that the hollow interior of the post is accessible from the underside of the base through said aperture, the post being dimensioned to receive the post of the handle of another corresponding device to enable a plurality of such devices to be stacked together.
2. A tray according to claim 1 wherein the base has a wall extending substantially vertically upwards from the perimeter of the base to prevent items from falling off the base.
3. A tray according to claim 1 or claim 2 wherein the handle portion further comprises a lifting handle located at the top of said post.
4. A tray according to claim 3 wherein the top of the post is vertically higher than the top of the wall.
5. A tray according to claim 3 or claim 4 wherein the post tapers inwardly towards its top.
6. A tray according to any of claims 3-5 wherein the top of the post has an aperture therein.
7. A tray according to any of claims 3-6 wherein the lifting handle comprises a circular hoop portion, a shaft portion connected to the hoop portion, and a snap-fit connection on the other end of the shaft distal from the hoop.
8. A tray according to claim 7 wherein the snap-fit connection comprises a plurality of resiliently deformable arms extending parallel to each other in the axial

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direction of the shaft, an end of each arm distal from the shaft having a projection extending laterally outwards from the arm.

9. A tray according to claim 7 or claim 8 wherein the hoop portion, the shaft and the snap-fit connection means are all integrally formed.
10. A tray according to any preceding claim wherein the base portion is circular.
11. A tray according to any preceding claim wherein the post is circular in cross-section.
12. A tray according to any of claims 7-11 including a rotatable collar between the post and the lifting handle.
13. A tray according to claim 12 wherein the collar has a central aperture therethrough to receive the shaft of the lifting handle to retain the collar in position between the post and the lifting handle.
14. A tray according to claim 12 or claim 13 wherein the collar has markings on the outer surface thereof.
15. A tray according to any of claims 12-14 wherein the collar is circular.
16. A tray according to any preceding claim wherein the base portion has a plurality of feet on the underside thereof.
17. A tray according to claim 12 wherein the feet are formed integrally with the base.
18. A tray according to any preceding claim wherein the base, the post and the wall are all formed as one unitary component.

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d. 30-11-2004

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19. A tray according to any of claims 1-6 wherein the entire tray is formed as one single unitary component.

5 20. A tray according to claim 18 or claim 19 wherein the unitary component is moulded.

21. A tray according to any preceding claim made from plastic, glass, a wood derivative or resin.

10 22. A tray according to any of claims 1-19 wherein the tray is made from metal, wood or a wood derivative.

23. A tray substantially as described herein with reference to the accompanying drawings.

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AMENDED SHEET

22-10